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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/802,761      | 03/18/2004  | Brian W. Pritchard   | 87431.1780          | 4689             |

7590 09/29/2005

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| EXAMINER |
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JIANG, CHEN WEN

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| ART UNIT | PAPER NUMBER |
|----------|--------------|

3744

DATE MAILED: 09/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                 |                  |  |
|------------------------------|-----------------|------------------|--|
| <b>Office Action Summary</b> | Application No. | Applicant(s)     |  |
|                              | 10/802,761      | PRITCHARD ET AL. |  |
|                              | Examiner        | Art Unit         |  |
|                              | Chen-Wen Jiang  | 3744             |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 18 March 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 7-21 is/are pending in the application.
- 4a) Of the above claim(s) 1-4, 8, 9 and 16-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7, 10, 14, 15 and 19-21 is/are rejected.
- 7) ☒ Claim(s) 11-13 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>20040318</u> .  | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election with traverse of Group VI (claims 7 and 10-21) in the reply filed on 7/19/2005 is acknowledged. However, claims 16-18 have been withdrawn from consideration as being directed to method claim which belong to non-elected invention. The traversal is on the ground(s) that "the search and examination of an entire application can be made without serious burden". This is not found persuasive because Applicants have not shown that the groups are not patentably distinct. Admission on the record by Applicants that the groups are not patentably distinct will result in rejoinder. The restriction in the previous Office is proper.

The requirement is still deemed proper and is therefore made FINAL.

### ***Information Disclosure Statement***

2. The information disclosure statement filed 3/18/2004 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document (DE8712812); each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It (DE8712812) has been placed in the application file, but the information referred to therein has not been considered.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 14 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Scrine et al. (U.S. Patent Number 4,240,266).

Scrine et al. disclose an apportioning means for refrigeration system. Referring to Fig. 1, the refrigeration system includes a refrigerator circuit 22 and a by-pass circuit 23. The refrigeration circuit 22 includes a compressor 1, a condenser 2, a liquid receiver 3 and an evaporator 4. The evaporator has a first flow path through intersection 7 and a second flow path through fan 25. The valve 14 is controlled by a controller 15 whose sensor is a thermometer bulb 16. The thermometer measures refrigerant temperature when there is no airflow and measure cooled air temperature when there is airflow. The refrigerant inlet temperature 7 is adjusted by the controller 15 which is response to the temperature sensor 16.

5. Claims 7 and 19 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Vanderstraeten (EP 1,103,296).

Vanderstraeten discloses a device and method for cool-drying. Referring to Figs. 1-4, the device comprises an evaporator 2, first flow path 9, second flow path through expansion valve 7, compressor 5, temperature sensor 25 to sense the temperature at an outlet of the first flow path, refrigerant temperature sensors 22,24 and pressure sensor 22A, bypass valve 19 and a controller 16. Vanderstraeten also discloses the control 16 may be either function of refrigerant temperature 22 or refrigerant pressure 22A.

### *Claim Rejections - 35 USC § 103*

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vanderstraeten (EP 1,103,296) in view of Scrine et al. (U.S. Patent Number 4,240,266).

Vanderstraeten discloses the invention substantially as claimed. However, Vanderstraeten does not disclose the sensor can sense refrigerant temperature and air temperature. Scrine et al. discloses sensor located at evaporator in the same field of endeavor can sense refrigerant temperature when there is no airflow and measure cooled air temperature when there is airflow. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the apparatus of Vanderstraeten with sensor location in view of Scrine et al. so as to sense the temperature.

8. Claims 15,20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scrine et al. (U.S. Patent Number 4,240,266) in view of Beaverson et al. (U.S. Patent Number 6,427,464).

In regard to claim 15 and 20, Scrine et al. disclose the invention substantially as claimed. However, Scrine et al. do not disclose evaporator pressure sensor. Beaverson et al. disclose an evaporator pressure 160 in the same field of endeavor for the purpose of controlling bypass flow.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the apparatus of Scrine et al. with an evaporator pressure sensor in view of Beaverson et al. so as to control loading based on both temperature and pressure sensors.

In regard to claim 21, the desire value is a design choice.

*Allowable Subject Matter*

9. Claims 11-13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chen-Wen Jiang whose telephone number is (571) 272-4809. The examiner can normally be reached on Monday-Thursday from 8:00 to 6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on (571) 272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chen-Wen Jiang  
Primary Examiner

